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EXAMINER

DEBNATH, SUMAN

ART UNIT

PAPER NUMBER

2435

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/712,665	Applicant(s) KHANGAONKAR ET AL.	
	Examiner SUMAN DEBNATH	Art Unit 2435	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5,8-10,18,19 and 23-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5,8-10,18,19 and 23-30 is/are rejected.
- 7) ☒ Claim(s) 5,8,9,18,23 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 5, 8-10, 18-19 and 23-30 are pending in this application.
2. Claims 5, 18, 23-24, 26 and 30 are currently amended.
3. Claims 1-4, 6-7, 11-17 and 20-22 were previously canceled.
4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

Claim Objections

5. Claims 5, 8, 9, 18, 23 and 26 are objected to because of the following:

As to claim 5, it recites, "using a first queue manager for encrypting the MQ message using Hyper-text Transport Protocol Secure (HTTPS) to provide an encrypted MQ message" in line 10. According to the Specification, queue manager receives encrypted message and/or decode and decrypt encrypted MQ message depending on whether the message is incoming or outgoing message (e.g. see, [0022]). No where in the Specification claim that a queue manager is used to encrypt the MQ message. Furthermore, claim recites, "using a second agent device for decoding the decrypted MQ message to recover the high level business data" in line 19. According to Specification an agent encodes and encrypts a message but decoding and decryption is done in a queue manger. No where in the Specification claim that an agent is used for decoding and decryption.

As to claim 8, it recites "the messages" in line 1. There is insufficient antecedent basis for this limitation in the claim.

As to claim 9, it recites “the number of messages” in line 1. There is insufficient antecedent basis for this limitation in the claim.

As to claim 18, it recites “the data” in line 5. It recites “a first queue manger” in line 9 and 15. There is insufficient antecedent basis for this limitation in the claim. Furthermore, it recites, “decoding the encrypted MQ message using a message queuing protocol located at the first agent. There is no description in the specification stating that the decoding done at an agent. Moreover, it recites, “storing the decrypted MQ message; and transmitting via the Internet using HTTP, and MQSeries Internet Passthrough (MQ IPT) and through the firewalls at each of the Internet, the encrypted MQ message to a first queue manager for retransmission at a time when the network is suitable for transporting the message to the server.” There is no description in the specification claiming that the decrypted MQ message was stored and transmitted, rather encrypted MQ message was stored in a queue manger until transmitted to a destination in an encrypted form.

As to claim 23, it recites “encrypted business data” in line 13, “the data” in line 15, “the target application” in line 19. There is insufficient antecedent basis for these limitations in the claim. Furthermore, it recites, “the high level business data and the target server are separated by the first and second demilitarized zones” in line 20. It’s not clear what Applicant meant by this limitation in the claim. According the other independent claims (i.e. claims 5, 26) the high level business data passes though a first demilitarized zone and a second demilitarized zone which makes more sense.

As to claim 26, it recites "the data" in line 5, "the firewalls" in line 9 and "the second hub and spoke Integration system" in line 13. There is insufficient antecedent basis for these limitations in the claim.

Appropriate corrections and/or clarifications are required.

Claim Rejections - 35 USC § 103

6. Claims 5, 8-10, 18-19 and 23-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lerner (Patent No.: US 6,954,799 B2) and further in view of Cocotis et al. (Pub. No.: US 2003/0078965 A1) (hereinafter, "Cocotis") and Ims et al. (Pub. No.: US 2002/0091533 A1) (hereinafter, "Ims").

7. As to claim 5, Lerner discloses a method for integrating applications hosted at different enterprises separated by at least one firewall, the method comprising steps of:
receiving high level business data from a source application program at an agent device operating as a spoke in a first hub and spoke integration system, wherein the agent device comprises an encryption engine (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16, "there is provided the message queuing middleware 370 similar in operation and function to the message queuing middleware 350. Similarly, the encryption/decryption engine 380 is configured to encrypt and decrypt data as with the encryption/decryption engine 340."; "the message broker based architecture shown in FIG. 3 contains a message broker component which provides message routing and transformation services in the "hub" of the "hub and spoke" arrangement.");

using the agent device for encoding the high level business data according to a message queuing protocol to provide an MQ message to an MQ server operating as a hub in a second hub and spoke integration system separated from the first hub and spoke integration system by the Internet (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16);

using a first queue manager for encrypting the MQ message to provide an encrypted MQ message (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16);

using the first queue manager for storing the encrypted MQ message for delivery to the MQ server until said MQ server is ready (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16, "The message queuing middleware 350 is configured to package data into messages and assure their delivery, even over unreliable transport media such as the internet."); and

transmitting, via the Internet using HTTP, the encrypted MQ message to the MQ server (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16),

using a second queue manager at the second hub and spoke integration system for decrypting the encrypted MQ message to produce a decrypted MQ message (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16);

using a second agent device for decoding the decrypted MQ message to recover the high level business data (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16);

using the MQ server for processing of the high level business data when received (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16).

Although Lerner teaches the concept of hub and spokes integration system (col. 8, lines 1-16), Lerner doesn't explicitly disclose transmitting, via the Internet using HTTP

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and MQ Series Internet Passthrough (MQ IPT); wherein the high level business data passes through a first demilitarized zone and a second demilitarized zone in order to reach the MQ server; wherein the first and second demilitarized zones each comprise at least one firewall separating its resident queue manager from the Internet.

However, Cocotis discloses wherein the high level business data passes through a first demilitarized zone and a second demilitarized zone in order to reach the MQ server; wherein the first and second demilitarized zones each comprise at least one firewall separating its resident queue manager from the Internet (FIG. 8, which describes DMZ zones, see also [0378], which provides a secure pass-through through a firewall.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the teaching of Lerner as taught by Cocotis in order to make sure LAN devices are secure by separating them from the Internet.

Although Learner discloses encryption engine for encrypting MQ messages (FIG. 3), neither Learner nor Cocotis explicitly disclose decrypting the MQ message using a Hyper-Text Transport Protocol Secure (HTTPS) security protocol. It should be noted that using HTTPS to transmit secure data is well known in the art. Furthermore, Ims discloses decrypting the MQ message using a Hyper-Text Transport Protocol Secure (HTTPS) security protocol ([0070]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the teaching of learner and Cocotis as taught by Ims in order to make sure secure delivery of publicly transmitted data.

8. As to claim 8, Learner discloses comprising maintaining a record of the messages received from the source application program (col. 7, lines 11-67 to col. 8, lines 1-16).

9. As to claim 9, Learner discloses wherein the record of the messages received from the source application program comprises information on the number of messages received (col. 7, lines 11-67 to col. 8, lines 1-16).

10. As to claim 10, Learner discloses wherein the record of the messages received from the source application program comprises information on type of messages received (col. 7, lines 11-67 to col. 8, lines 1-16).

11. As to claim 18, Lerner discloses a method for transmitting high-level data in real time to one or more enterprises (abstract), the method comprising:

receiving via the Internet, at a first agent acting as a spoke in a first hub and spoke integration system, from an application, an encrypted MQ message comprising high level business data from a source application and a request to process the data by a server acting as a hub in a second hub and spoke integration system (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16, "there is provided the message queuing middleware 370 similar in operation and function to the message queuing middleware 350.

Similarly, the encryption/decryption engine 380 is configured to encrypt and decrypt

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data as with the encryption/decryption engine 340."; "the message broker based architecture shown in FIG. 3 contains a message broker component which provides message routing and transformation services in the "hub" of the "hub and spoke" arrangement.";

decoding the encrypted MQ message using a message queuing protocol located at the first agent (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16)

using a first queue manager for decrypting the MQ message (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16);

storing the decrypted MQ message; and transmitting, via the Internet using HTTP, at each end of the Internet, the encrypted MQ message to a first queue manager for retransmission at a time when the network is suitable for transporting the message to the server (FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16, "The message queuing middleware 350 is configured to package data into messages and assure their delivery, even over unreliable transport media such as the internet.").

Lerner doesn't explicitly disclose decrypting the MQ message using a Hyper-Text Transport Protocol Secure (HTTPS) security protocol and transmitting using MQ Series Internet Passthrough (MQ IPT), and through the firewalls at each end of the Internet. However, Cocotis discloses transmitting using MQ Series Internet Passthrough (MQ IPT), and through the firewalls at each end of the Internet (FIG. 8, which describes DMZ zones, see also [0378], which provides a secure pass-through through a firewall.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the teaching of Lerner as taught by Cocotis in order to make sure LAN devices are secure by separating them from the Internet.

Although Learner discloses encryption engine for encrypting MQ messages (FIG. 3), neither Learner nor Cocotis explicitly disclose decrypting the MQ message using a Hyper-Text Transport Protocol Secure (HTTPS) security protocol. It should be noted that using HTTPS to transmit secure data is well known in the art. Furthermore, Ims discloses decrypting the MQ message using a Hyper-Text Transport Protocol Secure (HTTPS) security protocol ([0070]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the teaching of learner and Cocotis as taught by Ims in order to make sure secure delivery of publicly transmitted data.

12. As to claim 19, Lerner discloses wherein the high-level data comprises customer information (col. 7, lines 50-67).

13. As to claim 23, it is rejected using the similar rationale as for the rejection of claim 5.

14. As to claim 24, the combination of Lerner, Cocotis and Ims disclose further comprising a protocol for telling a sender to stop sending messages so that it can perform bookkeeping functions (Lerner: FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16).

15. As to claim 25, the combination of Lerner, Cocotis and Ims disclose wherein the encryption engine comprises a secure sockets layer protocol (Lerner: FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16).

16. As to claim 26, it is rejected using the similar rationale as for the rejection of claim 5.

17. As to claim 27, the combination of Lerner, Cocotis and Ims disclose comprising an instruction for storing the encrypted MQ message in a queue manager prior to transmitting the encrypted MQ message (Lerner: FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16).

18. As to claim 28, the combination of Lerner, Cocotis and Ims disclose comprising an instruction for sending a message to the source application program instructing the source application program to stop sending data (Lerner: FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16).

19. As to claim 29, the combination of Lerner, Cocotis and Ims disclose comprising an instruction for maintaining a record of the messages received from the source application program (Lerner: FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16).

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20. As to claim 30, the combination of Lerner, Cocotis and Ims disclose wherein the record of the messages received from the source application program comprises information on the number of messages received (Lerner: FIG. 3, col. 7, lines 11-67 to col. 8, lines 1-16).

21. Examiner's note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant.

Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may be applied as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Response to Arguments

22. Applicant has amended claims 5, 18, 23-24, 26 and 30 which necessitated new rejection, please see rejection above.

Conclusion

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUMAN DEBNATH whose telephone number is (571)270-1256. The examiner can normally be reached on 8 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on 571 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. D./
Examiner, Art Unit 2435

/Kimyen Vu/
Supervisory Patent Examiner, Art Unit 2435